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Environment Fact Sheets

Radon Awareness in Canada

Environment, Energy and Transportation Statistics Division

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. not available for any reference period
.. not available for a specific reference period
... not applicable
0 true zero or a value rounded to zero
0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p} preliminary
^{r} revised
x suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E} use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)

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Environment Fact Sheets

Radon Awareness in Canada

by Environment, Energy and Transportation Statistics Division

Radon is a naturally-occurring colourless, odourless, tasteless gas that is radioactive.

It occurs naturally throughout Canada, however there are some regions where it is more prevalent, such as Manitoba, Saskatchewan, New Brunswick and parts of British Columbia and Quebec.

When present, radon tends to accumulate in enclosed spaces such as homes and buildings. Overall, Health Canada estimates that approximately 7% of homes have high levels of radon.[1]

Radon is the second-leading cause of lung cancer, after smoking, accounting for 16% of lung cancer deaths, or 3,200 deaths in Canada, annually.[2]

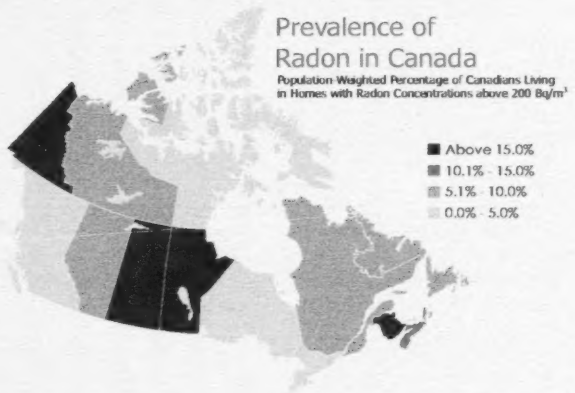
Awareness of radon

In 2015, the Households and the Environment Survey found that 55% of all Canadian households indicated that they had heard of radon, up from 45% in 2013. Households in Prince Edward Island (70%), New Brunswick (70%) and Saskatchewan (68%) were most likely to have heard of it, while those in Quebec (49%) and Newfoundland and Labrador (50%) were the least likely.

Of those who had heard of radon, 59% were able to correctly identify what it was when presented with a list of possible descriptions, which is an increase from 53% in 2013. Households in Nova Scotia (69%), New Brunswick (67%) and Quebec (67%) were the most likely to have correctly identified it.

Households in Alberta (36%) and British Columbia (38%) were most likely to have chosen an incorrect description for radon when asked in 2015.

Figure 1
Radon risk map


Prevalence of
Radon in Canada
Population-Weighted Percentage of Canadians Living in Homes with Radon Concentrations above 200 Bq/m³
Above 15.0%
10.1% - 15.0%
5.1% - 10.0%
0.0% - 5.0%

Source: Health Canada. 2012. Cross-Canada survey of radon concentrations in homes—final report. Available on http://www.hc-sc.gc.ca/ewh-semt/alt_formats/pdf/radiation/radon/survey-sondage-eng.pdf

Testing for radon

The only way to know whether radon is present in your home is to test for it. Inexpensive test kits are available that monitor the air for the presence of radon in the home. Depending on the type of kit, monitoring takes place several days or weeks before it is sent to a laboratory to analyze the results.

In 2015, 57% of households that did not live in apartments had heard of radon, up from 48% in 2013. Of these, 6% reported that they had tested their dwelling for the presence of radon, compared to 5% in 2013. Most households that had tested their dwelling (85%) had done so within the previous ten years.

1. Health Canada. Radon: Reduction Guide for Canadians. http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radon_canadians-canadiens/index-eng.php (accessed 7 October 2016).
2. Chen, J., Moir, D., Whyte, J. Canadian population risk of radon induced lung cancer: a re-assessment based on the recent cross-Canada radon survey. Radiat Prot Dosimetry. 152 (1-3): 9-13. Available at: http://www.ncbi.nlm.nih.gov/pubmed/22874897.

Radon Awareness in Canada

Radon levels are measured as Becquerels per cubic metre (Bq/m^3).

Health Canada recommends that remedial measures be undertaken in a dwelling whenever the average annual radon concentration exceeds 200 Bq/m^3 in the normal occupancy area.[3]

Mitigating for elevated levels of radon in most homes is relatively straight forward. The most common method is lowering the air pressure under the foundation using an exhaust fan, which prevents the radon from entering the home.

About Radon

- Radon is a radioactive gas that comes from uranium in the ground that can get into your home undetected. You can't see it, smell it or taste it.
- Exposure to radon represents almost 50% of a person's lifetime radiation exposure.
- The current Canadian guideline for radon in indoor air is 200 Bq/m^3.
- Smokers also exposed to high levels of radon have a significantly increased risk of developing lung cancer beyond the effect of smoking alone.
- All homes have some level of radon. The only way to know the level in your home is to take a simple and inexpensive test. Testing can be done by purchasing a do-it-yourself radon test kit or by a measurement professional that is certified under the Canadian National Radon Proficiency Program (C-NRPP).
- Health Canada is encouraging all Canadians to test their homes for radon.
- If the radon level in your home is high it can be fixed!
- Techniques to lower radon levels are effective and can save lives. Radon levels in most homes can be reduced by more than 80% for about the same cost as other common home repairs such as replacing the furnace or air conditioner.
- Hire a radon mitigation professional that has been certified under the Canadian National Radon Proficiency Program (C-NRPP) to help you find the best way to reduce the radon level in your home.

For more information:

- HealthCanada.gc.ca/radon
- TakeActionOnRadon.ca

3. **Health Canada, Radon: Reduction Guide for Canadians**, http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radon_canadians-canadiens/index-eng.php **(accessed 7 October 2016).**

About the Households and the Environment Survey

The Households and the Environment Survey asks Canadian households about their activities and behaviours with respect to the environment. It covers a wide variety of topics including water and energy consumption and conservation, hazardous products used in the home, and the household's interactions with nature. Data from the survey are used by government to guide policies and programs, by researchers to learn more about Canadians and by individuals to see how they compare to the rest of the country.

The target population of the 2015 Households and the Environment Survey consisted of households in Canada, excluding households located in Yukon, Northwest Territories and Nunavut, households located on reserves and in other Aboriginal settlements in the provinces; and households consisting entirely of full-time members of the Canadian Armed Forces. Institutions and households in certain remote regions were also excluded.

Definitions, data sources and methods: survey number 3881

Available in CANSIM: tables 153-0098, and 153-0166.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).